

Table I-8 - Regulation Schedule - Gull Lake Dam and Reservoir

Regulation Schedule	Condition	Reservoir Elev./Stage in ft.	Operation
<u>1. Routine Operation</u>			
After Labor Day to spring breakup	Winter drawdown	1194.00 to 1192.75 6.25± to 5.0	<p>The Reservoir Regulating Section shall compute the discharge required to lower the pool to minimum operating limit, elev. 1192.75 ft. (5.0 ft. stage), before the beginning of the spring breakup, usually about 1 April. Periodic checks of inflow shall be made and outflow adjusted as necessary. If the drawdown is completed before the breakup begins, discharge inflow until spring runoff starts.</p> <p>*The State of Minnesota's plan of operation requires the discharge to be 10 cfs if the elev. is below 1192.75 ft.</p>
Spring breakup Period	Storing spring runoff	1192.75 to 1194.75 5.0 to 7.0	<p>When the break up begins, obtain runoff from Plate 49 and compute inflow. It is desirable to raise pool to summer range elev. 1193.75 to 1194.0 ft., by 15 May. From inflow and storage change, compute outflow.</p> <p>When the pool reaches elevation 1193.75 to 1194.00 ft., discharge inflow if downstream conditions permit. If it is necessary to store inflows for downstream protection, allow pool to rise to maximum and ordinary operating limit, elev. 1194.75 ft., and at this stage discharge inflow. If the inflow becomes greater than the discharge capacity of the dam,</p>

Table I-8 - Regulation Schedule - Gull Lake Dam and Reservoir

Regulation Schedule	Condition	Reservoir Elev./Stage in ft.	Operation
<u>Routine Operation (Cont.)</u>			
			the dam shall be completely opened, and open river conditions will exist until regulation at the dam is again possible. Thereafter, discharge shall be governed by downstream conditions until the spring breakup is completed.
			*The State of Minnesota's plan of operation limits the maximum discharge to 1400 cfs if the reservoir is above the desired maximum elev. of 1194.75 ft. (7.0 ft. stage).
End of spring breakup to about 15 May	Bringing reservoir to desired summer range	1194.75 to (1193.75 - 1194.00)  7.0 to 6.0 - 6.25	After the reservoir has filled to the desired summer range 1193.75 to 1194.00 ft., and it is no longer necessary to store runoff for downstream damage prevention, discharge inflow. If it has been necessary to fill the reservoir above the desired summer range, the Reservoir Regulating Section shall determine the discharge required to gradually lower the pool to the summer range at a rate that will not endanger spawning fish and nesting waterfowl.
About 15 May to Labor Day	Normal summer operation	1193.75 - 1194.00 6.0 to 6.25	Regulate the outflow through the sluiceways to maintain pool at the desired summer range 1193.75 to 1194.00 ft., until winter drawdown begins. *The State of Minnesota's plan of operation requires the discharge to be 20 cfs if the elevation is below 1193.85 ft. (6.1 ft. stage).

Table I-8 - Regulation Schedule - Gull Lake Dam and Reservoir

Regulation Schedule	Condition	Reservoir Elev./Stage in ft.	Operation
<u>2. Flood Control</u>			
Summer	Large runoff from intense	1193.75 - 1194.75 6.0 - 7.0	The operation is the same as that for storing the spring runoff during the spring breakup period.
Fall	or prolonged rainfall or	1192.75 - 1194.75 5.0 - 7.0	
Winter	winter thaw	1192.75 - 1194.75 5.0 - 7.0	

3. Water Supply And Conservation

Drought	Very low inflows	1194.00 to 1192.75 (6.25 to 5.0) or lower if necessary
---------	---------------------	--

If inflows become so low that the reservoir must be lowered below desired elevation, so far as practicable, the reservoir shall be maintained above an elev. of 1192.75 ft. (5.0 ft. stage). The flow shall be governed by the Secretary of War's regulation that the average annual discharge shall not be reduced below 30 cfs. If the reservoir is at or below the minimum elev. of 1192.75 ft. (5.0 ft. stage), no discharge other than the minimum specified above shall be permitted except such increased discharge as may specifically be directed by the Chief of Engineers.

\*The State of Minnesota's plan of operation requires the discharge to be 10 cfs if the elevation is below 1192.75 ft., minimum elevation; and 20 cfs if the elevation is between 1192.75 and 1193.75 ft. When greater flows are required at the minimum elevation, the discharge may be increased if authorized by the Commissioner of Conservation, and the maximum shall be 100 cfs.

\*The State of Minnesota's plan of operation shall be effective only when the reservoirs are not functioning for the primary purposes of navigation and flood control.

MINNESOTA DEPARTMENT OF CONSERVATION  
REGULATION OF GULL LAKE RESERVOIR

---

Elev. in feet	Maximum Discharge in cfs if Authorized By The Commissioner of Conservation
1190.75	10
1191.25	20
1191.75	40
1192.25	60
1192.75	100
1193.25	200
1193.75	400
1193.87**	
1194.25	600
1194.75	1000
1195.25	1400

---

\*\* Most desirable elevation for recreation purposes.

LOGARITHMIC 359-110  
 REUFEL BENDER CO.

